

HAWAII, ISLAND OF HAWAII

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16756100 KOHAKOHAU STREAM ABOVE DWS INTAKE, NEAR KAMUELA

LOCATION.--Lat 20°02'58", long 155°41'05", Old Hawaiian Datum, Hydrologic Unit 20010000, on right bank 200 ft upstream of Dept. of Water Supply dam and intake, 0.85 mi west of Puu Oahu, and 1.85 mi northwest of junction of Highways 19 and 190.

DRAINAGE AREA.--2.40 mi².

PERIOD OF RECORD.--June 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,470 ft above mean sea level (from topographic map).

REMARKS.--Records computed by Clayton Yoshida. Records good. Parker Ranch diverts water from Kohakohau Stream at an altitude of 4,250 ft through a 4-inch pipeline. Hawaii Dept. of Water Supply diverts water at dam 200 ft downstream for domestic use in the Kamuela and Kawaihae areas since August 20, 1973.

AVERAGE DISCHARGE.--8 years (water years 1998-2005), 11.5 ft³/s (8,340 acrs-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s, March 14, 2004, gage height, 8.86 ft from rating curve developed using flow-over-dam computations and high water marks at gage; minimum, 0.20 ft³/s, November 10, 2003.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

	Date	Time	Discharge (ft ³ /s)	Gage height (ft)		Date	Time	Discharge (ft ³ /s)	Gage height (ft)
	Nov 16	0235	522	4.94		Mar 28	1050	488	4.81
	Jan 2	2350	*554	*5.08		Sep 30	0950	464	4.72

Minimum discharge, 0.15 ft³/s, Feb. 11, 12, 24, 25, gage height, 1.24 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.28	0.31	0.64	0.61	0.19	0.68	42	0.83	0.52	18	16	4.6
2	6.2	0.28	5.2	27	0.19	0.45	29	0.75	0.49	44	26	6.2
3	1.9	0.28	2.3	140	0.19	0.33	37	0.68	0.50	9.5	7.7	3.3
4	1.1	0.26	1.4	13	0.54	0.25	10	0.64	0.44	5.3	40	2.1
5	0.77	0.25	4.3	2.5	0.32	0.22	4.1	0.62	0.47	7.1	12	2.6
6	0.54	0.24	20	1.6	0.24	0.20	34	0.62	0.50	4.9	9.8	6.5
7	0.44	0.24	44	1.2	0.20	0.18	28	0.59	0.62	4.0	81	20
8	0.41	0.22	9.3	1.0	0.19	0.17	8.3	0.56	0.62	67	75	7.5
9	0.38	0.21	2.5	40	0.18	0.17	28	0.55	1.7	60	20	2.9
10	0.46	0.21	3.9	33	0.17	0.23	14	0.53	1.00	59	8.6	2.2
11	0.78	0.20	2.7	6.1	0.16	5.3	4.3	0.52	24	38	4.9	2.6
12	0.60	0.19	1.8	2.4	0.15	37	6.5	0.50	40	58	3.2	14
13	7.7	0.19	1.4	1.5	3.7	7.1	2.5	0.54	5.8	57	2.4	19
14	7.6	25	1.2	1.2	1.5	2.2	1.8	0.79	3.5	48	2.0	9.9
15	1.4	317	0.99	0.98	0.61	52	2.8	0.65	2.5	22	2.3	11
16	1.3	153	0.83	0.79	0.44	10	13	0.60	1.3	6.7	24	5.2
17	1.1	5.4	0.82	0.60	0.33	1.6	8.0	0.57	1.1	3.3	6.8	11
18	0.83	14	0.83	0.50	0.26	1.0	2.3	0.54	0.99	10	36	4.0
19	0.76	4.4	0.91	0.44	0.23	0.84	1.5	0.55	0.86	40	7.6	2.4
20	2.8	2.2	0.77	0.39	0.22	0.69	1.3	6.4	13	4.5	6.1	1.9
21	1.4	1.7	0.64	0.37	0.20	0.55	1.4	4.0	45	16	2.9	3.0
22	3.0	1.4	0.55	0.35	0.18	0.47	2.0	1.4	28	11	2.1	5.6
23	3.9	1.1	0.49	0.29	0.17	0.44	3.1	0.96	16	13	2.0	4.2
24	2.3	0.96	0.45	0.26	0.16	0.37	5.6	0.82	7.1	10	2.0	2.3
25	1.3	0.84	0.42	0.24	0.16	0.32	3.6	0.72	5.0	7.0	5.2	1.8
26	1.0	0.73	0.39	0.22	1.3	2.3	3.2	0.64	1.7	5.0	3.4	14
27	0.72	0.65	0.36	0.22	0.68	58	1.6	0.61	1.3	3.1	2.0	18
28	0.54	0.59	0.34	0.21	0.50	280	1.2	0.64	1.4	8.9	1.8	8.2
29	0.45	0.52	0.33	0.19	---	167	1.0	0.78	1.9	79	1.6	5.0
30	0.37	0.52	0.31	0.20	---	125	0.92	0.66	13	19	1.5	128
31	0.33	---	0.30	0.20	---	100	---	0.57	---	5.0	1.4	---
TOTAL	52.66	533.09	110.37	277.56	13.36	855.06	302.02	29.83	220.31	743.3	417.3	329.0
MEAN	1.70	17.8	3.56	8.95	0.48	27.6	10.1	0.96	7.34	24.0	13.5	11.0
MAX	7.7	317	44	140	3.7	280	42	6.4	45	79	81	128
MIN	0.28	0.19	0.30	0.19	0.15	0.17	0.92	0.50	0.44	3.1	1.4	1.8
AC-FT	104	1,060	219	551	26	1,700	599	59	437	1,470	828	653

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	9.02	13.2	10.5	10.2	16.0	22.0	13.2	4.41	5.50	14.7	13.9	9.26
MAX	24.6	21.5	31.3	25.4	39.8	54.8	44.9	12.5	11.7	30.5	23.8	21.7
(WY)	(1999)	(2000)	(2002)	(2000)	(2002)	(1999)	(2004)	(2004)	(2002)	(2002)	(2001)	(1998)
MIN	0.92	0.30	1.32	0.38	0.48	1.27	1.46	0.50	2.01	1.84	3.56	0.38
(WY)	(2004)	(2003)	(2001)	(2001)	(2005)	(2003)	(2002)	(1999)	(1999)	(2004)	(2004)	(2004)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1998 - 2005
ANNUAL TOTAL	4,915.85	3,883.86	
ANNUAL MEAN	13.4	10.6	11.5
HIGHEST ANNUAL MEAN			16.4
LOWEST ANNUAL MEAN			6.71
HIGHEST DAILY MEAN	486	Mar 14	524 Feb 26, 2002
LOWEST DAILY MEAN	0.19	Nov 12	0.15 Feb 8, 2003
ANNUAL SEVEN-DAY MINIMUM	0.21	Nov 7	0.16 Feb 7, 2003
ANNUAL RUNOFF (AC-FT)	9,750	7,700	8,340
10 PERCENT EXCEEDS	21	28	28
50 PERCENT EXCEEDS	1.6	1.5	2.2
90 PERCENT EXCEEDS	0.36	0.24	0.36